Amendments to the Claims:

Please amend claim 16, cancel claims 18-37, and add new claims 54-85 as follows:

1-9. (Cancelled)

10. (Original) A method for packaging a microelectronic substrate, comprising:

providing a microelectronic substrate having a first surface, a second surface facing opposite from the first surface, and a plurality of first connection sites at least proximate to the first surface;

disposing flowable, electrically conductive couplers at the first connection sites;

disposing a generally non-conductive material between the conductive couplers;

selecting a gap dimension based on a target underfill material flow rate;

removing at least a portion of the generally non-conductive material to form a gap between neighboring conductive couplers, the gap having the selected gap dimension in a direction generally normal to the first surface of the microelectronic substrate;

connecting the microelectronic substrate to a support member by attaching the conductive couplers to second bond sites of the support member; and

flowing an underfill material into the gap at at least approximately the target underfill material flow rate.

11. (Original) The method of claim 10 wherein selecting the gap dimension includes selecting the gap dimension to be at least 25 microns.

12. (Original) The method of claim 10 wherein the underfill material includes a plurality of particles having a mean diameter, and wherein selecting the gap dimension includes selecting the gap dimension to be at least three times the mean diameter of the particles.

13. (Original) The method of claim 10 wherein the microelectronic substrate has a plurality of edges, and wherein the method further comprises disposing the underfill material along at least one of the edges, further wherein flowing an underfill material into the gap at at least approximately the target underfill material flow rate includes filling the gap before the underfill material wicks completely around the edges of the microelectronic substrate.

14. (Original) The method of claim 10, further comprising selecting the conductive couplers to include solder balls.

15. (Original) The method of claim 10, further comprising selecting the conductive couplers to include a flux material and a plurality of solder particles disposed in the flux material.

16. (Currently Amended) A method for packaging a microelectronic substrate, comprising:

providing a microelectronic substrate having a first surface, a second surface facing opposite from the first surface, and a plurality of first connection sites at least proximate to the first surface;

disposing flowable, electrically conductive couplers at the first connection sites;

disposing a generally non-conductive material between the conductive couplers;

selecting a gap dimension based on a target underfill material flow rate;

removing at least a portion of the generally non-conductive material to form a gap between neighboring conductive couplers, the gap having the selected gap dimension in a direction generally normal to the first surface of the microelectronic substrate;

connecting the microelectronic substrate to a support member by attaching the conductive couplers to second bond sites of the support member;

flowing an underfill material into the gap at at least approximately the target underfill material flow rate; and

~~The method of claim 10, further comprising~~ removing material from the second surface of the microelectronic substrate to thin the microelectronic substrate before removing at least a portion of the generally non-conductive material.

17. (Original) The method of claim 10 wherein removing at least a portion of the generally non-conductive material includes etching at least some of the generally non-conductive material.

18-53. (Cancelled)

54. (New) The method of claim 10, further comprising applying an adhesive material at an interface between the microelectronic substrate and the support member, with the adhesive material having at least one opening positioned to allow fluid communication between the gap and a region external to the package.

55. (New) The method of claim 10, further comprising cooling the microelectronic substrate by passing a flow of gaseous fluid through the gap.

56. (New) The method of claim 10, further comprising selecting the microelectronic substrate to include at least one memory device.

57. (New) The method of claim 10, further comprising disposing on the second bond sites a flux material before connecting the microelectronic substrate to the support member.

58. (New) The method of claim 10 wherein disposing the generally non-conductive material comprises depositing an epoxy material.

59. (New) The method of claim 10 wherein flowing the underfill material comprises flowing a first underfill material, and wherein disposing the generally non-conductive material comprises depositing a second underfill material.

60. (New) The method of claim 16 wherein selecting the gap dimension comprises selecting the gap dimension to be at least 25 microns.

61. (New) The method of claim 16 wherein:

the underfill material comprises a plurality of particles having a mean diameter; and

selecting the gap dimension comprises selecting the gap dimension to be at least three times the mean diameter of the particles.

62. (New) The method of claim 16 wherein the microelectronic substrate has a plurality of edges, wherein the method further comprises disposing the underfill material along at least one of the edges, and wherein flowing the underfill material into the gap comprises filling the gap before the underfill material wicks completely around the edges of the microelectronic substrate.

63. (New) The method of claim 16, further comprising selecting the conductive couplers to include solder balls.

64. (New) The method of claim 16, further comprising selecting the conductive couplers to include a flux material and a plurality of solder particles disposed in the flux material.

65. (New) The method of claim 16 wherein removing at least a portion of the generally non-conductive material comprises etching at least some of the generally non-conductive material.

66. (New) The method of claim 16, further comprising applying an adhesive material at an interface between the microelectronic substrate and the support member, with the adhesive material having at least one opening positioned to allow fluid communication between the gap and a region external to the package.

67. (New) The method of claim 16, further comprising cooling the microelectronic substrate by passing a flow of gaseous fluid through the gap.

68. (New) The method of claim 16, further comprising selecting the microelectronic substrate to include at least one memory device.

69. (New) The method of claim 16, further comprising disposing on the second bond sites a flux material before connecting the microelectronic substrate to the support member.

70. (New) The method of claim 16 wherein disposing the generally non-conductive material comprises depositing an epoxy material.

71. (New) The method of claim 16 wherein flowing the underfill material comprises flowing a first underfill material, and wherein disposing the generally non-conductive material comprises depositing a second underfill material.

72. (New) A method for packaging a microelectronic substrate, comprising:

providing a microelectronic substrate having a first surface, a second surface facing opposite from the first surface, and a plurality of first connection sites at least proximate to the first surface;

disposing flowable, electrically conductive couplers at the first connection sites;

disposing a generally non-conductive material between the conductive couplers;

removing at least a portion of the generally non-conductive material to form a gap between neighboring conductive couplers, the gap having a selected

gap dimension in a direction generally normal to the first surface of the microelectronic substrate;

connecting the microelectronic substrate to a support member by attaching the conductive couplers to second bond sites of the support member; and

flowing an underfill material into the gap.

73. (New) The method of claim 72, further comprising selecting the gap dimension to be at least 25 microns.

74. (New) The method of claim 72 wherein the underfill material comprises a plurality of particles having a mean diameter, and wherein the method further comprises selecting the gap dimension to be at least three times the mean diameter of the particles.

75. (New) The method of claim 72 wherein the microelectronic substrate has a plurality of edges, wherein the method further comprises disposing the underfill material along at least one of the edges, and wherein flowing the underfill material into the gap comprises filling the gap before the underfill material wicks completely around the edges of the microelectronic substrate.

76. (New) The method of claim 72, further comprising selecting the conductive couplers to include solder balls.

77. (New) The method of claim 72, further comprising selecting the conductive couplers to include a flux material and a plurality of solder particles disposed in the flux material.

78. (New) The method of claim 72 wherein removing at least a portion of the generally non-conductive material comprises etching at least some of the generally non-conductive material.

79. (New) The method of claim 72, further comprising removing material from the second surface of the microelectronic substrate to thin the microelectronic substrate before removing at least a portion of the generally non-conductive material.

80. (New) The method of claim 72, further comprising applying an adhesive material at an interface between the microelectronic substrate and the support member, with the adhesive material having at least one opening positioned to allow fluid communication between the gap and a region external to the package.

81. (New) The method of claim 72, further comprising cooling the microelectronic substrate by passing a flow of gaseous fluid through the gap.

82. (New) The method of claim 72, further comprising selecting the microelectronic substrate to include at least one memory device.

83. (New) The method of claim 72, further comprising disposing on the second bond sites a flux material before connecting the microelectronic substrate to the support member.

84. (New) The method of claim 72 wherein disposing the generally non-conductive material comprises depositing an epoxy material.

85. (New) The method of claim 72 wherein flowing the underfill material comprises flowing a first underfill material, and wherein disposing the generally non-conductive material comprises depositing a second underfill material.